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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/783,287	02/20/2004	Ricardo Te Lim	VP113	7613	
20178	7590 04/06/2006	EXAMINER		INER	
EPSON RESEARCH AND DEVELOPMENT INC			HASSAN, AU	HASSAN, AURANGZEB	
INTELLECTUAL PROPERTY DEPT 150 RIVER OAKS PARKWAY, SUITE 225			ART UNIT	PAPER NUMBER	
	SAN JOSE, CA 95134			2182	
			DATE MAILED: 04/06/2006	6	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
	10/783,287	LIM ET AL.				
Office Action Summary	Examiner	Art Unit				
	Aurangzeb Hassan	2182				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  Extensions of time may be available under the provisions of 37 CFR 1.11 after SIX (6) MONTHS from the mailing date of this communication.  If NO period for reply is specified above, the maximum statutory period v  Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from , cause the application to become ABANDONE	N. nely filed the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 20 February 2004.						
2a) This action is <b>FINAL</b> . 2b) ☐ This	This action is <b>FINAL</b> . 2b)⊠ This action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
4) ⊠ Claim(s) 1-16 is/are pending in the application.  4a) Of the above claim(s) is/are withdray.  5) □ Claim(s) is/are allowed.  6) ⊠ Claim(s) 1-16 is/are rejected.  7) □ Claim(s) is/are objected to.  8) □ Claim(s) are subject to restriction and/o	wn from consideration.					
Application Papers						
9) The specification is objected to by the Examine 10) The drawing(s) filed on 20 February 2004 is/are Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Ex	e: a)⊠ accepted or b)⊡ objecte drawing(s) be held in abeyance. Sec tion is required if the drawing(s) is ob	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).				
Priority under 35 U.S.C. § 119						
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>						
Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	4)	ate				
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/20/2004</u> .	5) Notice of Informal F 6) Other:	Patent Application (PTO-152)				

Art Unit: 2182

#### **DETAILED ACTION**

### Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 5-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. For a system or an apparatus or a machine to be a physical object, at least one recited element must be hardware. It is unclear to the examiner whether any of the limitations of claims 5-8 necessarily recite hardware.

According to the applicants specification paragraph [0029] on page 3, an apparatus may

the claim are therefore be defined as software alone, a computer program per se and the rejected for being non-statutory.

To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (non-statutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

## Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

Application/Control Number: 10/783,287 Page 3

Art Unit: 2182

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

- 4. Claims 1 16 are rejected under 35 U.S.C. 102(a) as being anticipated by Tang et al. (International Publication Number WO 03/050684 hereinafter "Tang").
- 5. As per claims 1, 5, 9, and 13, Tang teaches a method, apparatus, medium, and system for burst mode data transfers (delivered small bursts, lines 15 16, paragraph [0022]) between a CPU (central processor, element 510, figure 5) and a FIFO (figure 1), the CPU adapted to execute a burst mode (burst mode lines 6-7, paragraph [0029]) memory access instruction defining multiple memory addresses (FIFO memory circuitry includes (addresses) storage locations for control bits and data bits, lines 6 7, paragraph [0034]), the method comprising the steps of:

Decoding (decompression logic included in the FIFO memory, paragraph [0028]) the multiple memory addresses to produce an output that is the same for each of the multiple memory addresses (burst operations transfers data from multiple memory locations concurrently allowing for equating output lines, paragraph [0024]); and

accessing the FIFO repeatedly, for each of the multiple addresses, by use of said output (multiple transactions with large amounts of data can arrive in rapid succession, paragraph [0029]).

Application/Control Number: 10/783,287 Page 4

Art Unit: 2182

6. As per claims 2, 6, 10, and 14 Tang teaches a method, apparatus, medium, and system further comprising placing the multiple memory addresses sequentially on a bus (lines 9 – 14, paragraph [0022]), and sequentially receiving the multiple memory addresses from the bus for said step of decoding (delivered as small bursts, lines 15 – 16, paragraph [0022]).

- 7. As per claims 3, 7, 11, and 15 Tang teaches a method, apparatus, medium and system wherein said step of accessing is read accessing (read cycles, paragraph [0026], Reads from FIFO memory, paragraph [0033]).
- 8. As per claims 4, 8, 12, and 16 Tang teaches a method, apparatus, medium and system wherein said step of accessing is write accessing (write cycles, paragraph [0026], written into the FIFO memory, paragraph [0042]).

#### Conclusion

- 9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Examiner makes note of references are cited to further show the state of the art as it pertains to the applicants invention, teaching burst modes for CPU and FIFO inclusively.
- 10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aurangzeb Hassan whose telephone number is

Application/Control Number: 10/783,287 Page 5

Art Unit: 2182

(571)272-8625. The examiner can normally be reached on Monday - Friday 9 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571)272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AH 3/31/2006

> KIM HUYNH SUPERVISORY PATENT EXAMINED

> > 4/3/05